



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

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IN YOUR PRACTICE**

TO: Health Care Providers

FROM: James L. Hadler, MD, MPH, State Epidemiologist

DATE: May 8, 2006

SUBJECT: Surveillance for Human Illness Caused by Avian Influenza A (H5N1) Virus

It is likely that the avian influenza A (H5N1) epizootic will eventually reach the United States. As "bird flu" moves closer to the U.S., interest in diagnosing human influenza A (H5N1) infection following bird exposure, as well as the identification of a mutation of the virus into a strain readily passed between people, is increasing.

The purpose of this communication is to inform you of:

- The current strategy for surveillance for human infection with influenza A (H5N1) virus; and
- The availability, criteria, and limitations of testing for avian influenza A (H5N1) at the State Laboratory.

Surveillance

There are two phases for surveillance for human infection: 1) the current phase in which avian H5N1 is not circulating in the U.S.; and 2) the phase after which H5N1 has begun circulating in birds in the U.S. The current objective of human surveillance in the U.S. is to detect human cases of H5N1 infection that may have been acquired as a result of exposure in countries in which H5N1 has been identified. In addition, if a human case is confirmed, an additional objective will be to determine whether infection has been spread to any close human contacts.

For the current phase, the Connecticut Department of Public Health (DPH) recommends maintaining enhanced surveillance to identify patients at increased risk for infection with the avian influenza A (H5N1) virus. Guidelines for enhanced surveillance include both clinical and exposure criteria, as follows:

- Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness *for which an alternate diagnosis has not been established*, AND
- History of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry, wild birds and/or humans.

In addition, testing for avian influenza A (H5N1) should be considered on a case-by-case basis in consultation with the DPH, Epidemiology Program for hospitalized or ambulatory patients with:

- Documented temperature > 100.4 F, AND
- One or more of the following: cough, sore throat, shortness of breath, AND

- History of contact with poultry (e.g., visited a poultry farm, a household raising poultry, or a bird market), or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

Availability of Testing

Laboratory testing for human cases of possible avian influenza (H5N1) is available only through the State Laboratory. The State Laboratory will provide *free testing* for avian influenza A (H5N1) for any patient reported through the surveillance system who meets the above surveillance criteria.

Acceptable Specimens include the following:

- oropharyngeal aspirates or washes (preferred specimen due to low viral load), nasopharyngeal swabs or aspirates
- throat swabs
- sputum
- tracheal aspirates
- bronchoalveolar lavages

Wash specimens must have a minimum specimen volume of 200 microliters. Swab specimens should be collected using swabs with a Dacron tip and an aluminum or plastic shaft (wooden shafts are not acceptable). These are the swabs supplied in the State VC (Viral Culture) Collection Kit. Swabs should be submitted in viral transport medium refrigerated or frozen and shipped on ice or ice packs.

Unacceptable specimens include:

- Swabs with calcium alginate, cotton tips, or wooden shafts
- Specimens not refrigerated or frozen
- Insufficient specimen volume (less than 200 microliters)
- Incomplete/Incorrect labeling or documentation
- Specimens not meeting epidemiological case criteria

Testing Turn Around Time:

- Rapid Influenza A Membrane ELISA (not specific for H5N1): same day results
- LRN FDA Approved Avian Influenza (H5N1) PCR: next day results

Due to the inability to perform viral cultures safely, all presumptive positive samples will be forwarded to Centers for Disease Control and Prevention (CDC) immediately for confirmation.

How to Request Testing

Specimens for avian influenza A (H5N1) testing should *not* be sent to the State Laboratory *without first consulting the DPH Epidemiology Program* (860-509-7994 or 7995, Monday-Friday 8:30 am – 4:30 pm; 860-509-8000 after hours and weekends). If the patient meets the surveillance criteria for testing listed above, then authorization will be given to proceed with testing.

Once influenza A (H5N1) has arrived in the U.S., testing criteria may be modified, although the objectives will remain the same. Additional information will be made public at that time through the CDC and Connecticut Health Alert Networks and through the DPH web page (<http://www.dph.state.ct.us/>).

If you have questions, please contact the DPH Epidemiology Program (above) or the State Laboratory (860-509-8615). If you need to order State Viral Culture Collection kits, please call the State Laboratory.